Extra Maths Challenges: Monday 22nd – Friday 26th February – Statistics

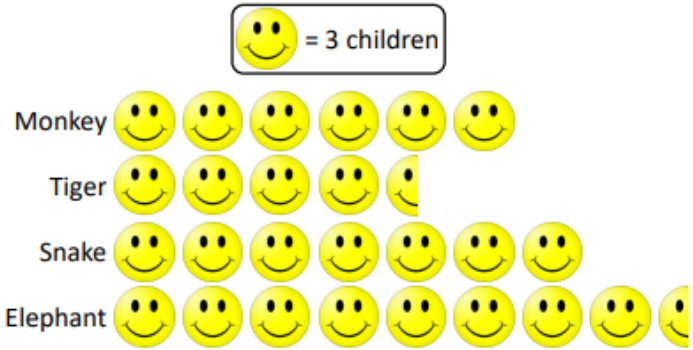
Create a tally chart, collecting information from a walk or looking outside a window. You could count how many different coloured cars, how many different animals you see.	Create a pictogram to show how many different packets of crisps you have in your home. (or something else) What was the most popular? What was the least popular?	

Our Favourite Sports

Sport	Tally	Number of Students
Hockey	𝍸 I	6
Soccer	𝍸	5
Basketball	IIII	4
Gymnastics	II	2

Colour	Number of Smarties	Frequency
Green		7
Orange		8
Blue		5
Pink		6
Yellow		11
Red		8
Purple		7
Brown		3
	Key = 2 smarties	

Look at this **pictogram**. It shows a group of children's favourite animal:



Can you spot the **problem** with this pictogram? **Explain** your reasoning...

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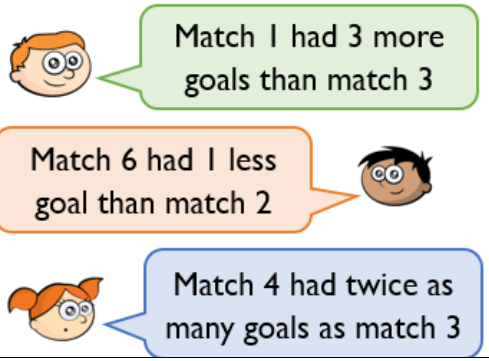
Ron, Amir and Alex record the scores of six football matches. Unfortunately, Ron spilt paint on them. Record the results based on what the children remember.



Match	Number of goals ⚽ = 2 goals
1	
2	
3	
4	
5	
6	

Whitney and Teddy are making pictograms to show how many chocolate eggs each class won at the fair.

KEY: 🥚 = 5 eggs KEY: 🥚 = 10 eggs

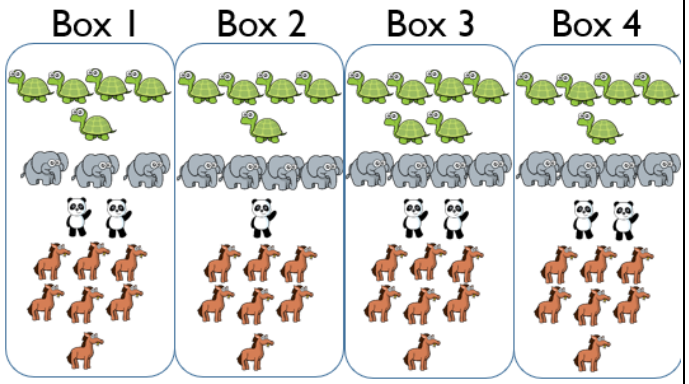
Class	Number of eggs
1	
2	
3	
4	
5	
6	

Class	Number of eggs
1	
2	
3	
4	
5	
6	

What's the same and what's different about them?
Whose pictogram do you prefer and why?

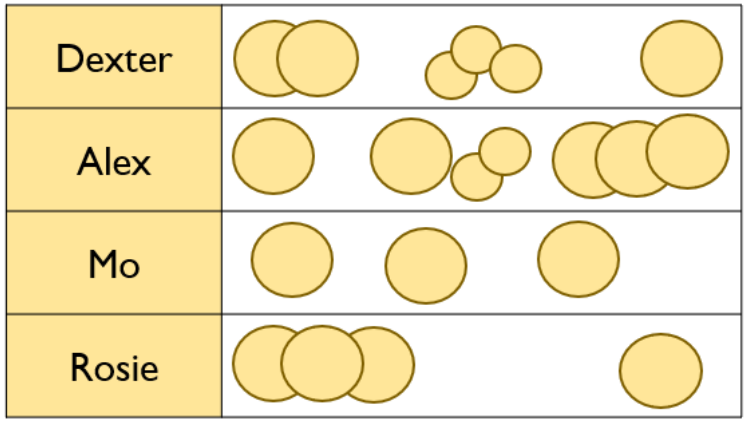
Dexter makes a tally chart of the animals he saw at the zoo.

Animal	Tally
	𝍸
	𝍸 |
	||
	𝍸 ||



Which box shows all of the animals Dexter saw?
Explain why the others are incorrect.

Here is a pictogram showing the number of counters each child has.



How could you improve the pictogram?

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Use the clues to help you complete the pictogram.

- More Caramel was sold than Bubblegum flavour, but less than Strawberry flavour.
- Mint was the most popular flavour.
- Vanilla was the least popular.

Flavour	= 1 ice cream	Total
Strawberry		
Vanilla		
Chocolate		
Mint		
Caramel		
Bubblegum		4

Can you find more than one way to complete the pictogram?

Teddy writes these statements about his pictogram:

- There were more cows than sheep.
- There were the same number of sheep and horses.
- There were more chickens than any other animal.
- There were less cows than goats.
- There were 8 goats.

Can you draw a pictogram so that Teddy's statements are correct?
What title would you give it?

Here is a pictogram.

Blue	
Red	
Yellow	
Green	

The most popular colour sweet is green.

Do you agree with Eva?

Explain why and correct any mistakes

Jack and Whitney have carried out a traffic survey.

Van	
Bus	
Bike	
Lorry	
Car	

= 10 vehicles

To find the total number of vehicles I need to count the symbols. There are 16 and a half vehicles.

Jack

Whitney

If I add the number of lorries and bikes together then it will be equal to the number of cars

Who is right? Convince me.

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Justify

If the staff needed to pick one day to have off during the week, which would be the best day and why?

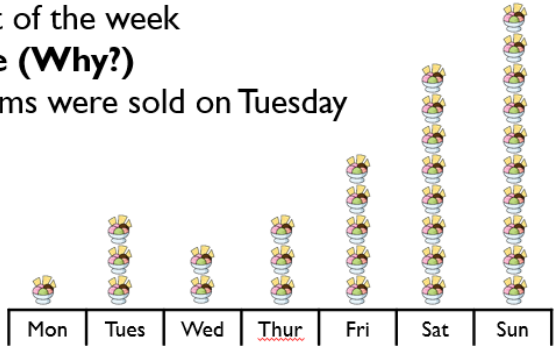
Convince me

There are more ice-creams sold at the weekend than during the rest of the week

True or False (Why?)

Three ice creams were sold on Tuesday

= 2 ice creams



Explain

Mrs Brown is counting how many days it rains this month.
Here is her tally chart so far:

𝍸 |

Why is Mrs Brown using tally marks instead of numbers?

Mrs Brown is counting how many children on school dinners and how many on packed lunches.
Here is what she writes:

22 school dinners 8 packed lunches

Why is Mrs Brown using numbers instead of tally marks?

Which answer?

How many more children have school dinners than packed lunches?

School dinners	
Packed lunches	

= 5 children

2 more children

10 more children

Which graph?

Eye Colour of Teachers

Brown	6 teachers
Green	2 teachers
Blue	3 teachers

Mr Harris found out the eye colours of all the teachers in the school.

Look at the three graphs. Which graph show this information correctly?